

LISTING OF THE CLAIMS

Claims 1-37 (canceled).

38. (Withdrawn from consideration) A gene cassette comprising:
a first nucleic acid recognition
sequence for FLP;
an organ-specific, developmental stage-specific or conditionally inducible
promoter for a gene encoding FLP;
a flp gene that encodes FLP;
a gene encoding a plant phenotypic trait; and
a second nucleic acid recognition sequence for FLP
wherein the nucleic acid recognition sequences for FLP are oriented as direct repeats.
39. (Withdrawn from consideration) The gene cassette of claim 38 wherein the first or
second recognition sequence for FLP is LoxP.
40. (Withdrawn from consideration) The gene cassette of claim 38 wherein the first and
second recognition sequences for FLP are LoxP.
41. (Withdrawn from consideration) The gene cassette of claim 38 wherein the conditionally
inducible promoter is a pollen specific promoter.
42. (Withdrawn from consideration) The gene cassette of claim 41 wherein the pollen
specific promoter is Bcp1 or LAT52.
43. (Withdrawn from consideration) The gene cassette of claim 40 further comprising:
a first nucleic acid recognition sequence for Cre which flanks the first FLP
recognition sequence;

a *cre* gene that encodes Cre positioned 5' or 3' to the gene encoding the plant phenotypic trait, said *cre* gene operably linked to a conditionally active promoter;
and
a second nucleic acid recognition sequence for Cre which flanks the second FLP recognition sequence.

wherein recognition sequences are oriented as direct repeats.

44. (Withdrawn from consideration) The gene cassette of claim 40 further comprising a marker gene positioned 5' or 3' to the gene encoding a plant phenotypic trait.
45. (Withdrawn from consideration) The gene cassette of claim 40 or 43 wherein the promoter is selected from the group consisting of Pro-4 and AGL5.
46. (Withdrawn from consideration) A gene cassette comprising:
 - a first nucleic acid excision sequence recognized by recombinase Cre;
 - a second nucleic acid excision sequence recognized by recombinase R;
 - a pollen specific conditionally active promoter operably linked to a nucleic acid that encodes FLP;
 - a third nucleic acid excision sequence recognized by recombinase FLP;
 - an externally activated promoter operably connected to a gene encoding recombinase FLP;
 - a transcription factor specific for the externally activated promoter;
 - a fourth nucleic acid recognition sequence recognized by recombinase FLP;
 - a fusion gene that encodes Cre and R and is linked to a protease sensitive site;
 - a DNA encoding a plant phenotypic trait;
 - a gene encoding a protease that cleaves the protease sensitive site between Cre and R in the expressed fusion protein;
 - a fifth nucleic acid excision sequence recognizable by recombinase R; and
 - a sixth nucleic acid excision sequence recognizable by recombinase Cre

wherein the nucleic acid recognition sites are oriented as direct repeats and substantially all DNA between the terminal excision sequence sites is deleted when the externally activated promoter is stimulated leaving no detectable DNA encoding the plant phenotypic trait and wherein the phenotypic trait is expressed only at the time of pollen maturation.

47. (Withdrawn from consideration) The gene cassette of claim 46 further comprising a marker gene adjacent to the DNA encoding a phenotypic trait.
48. (Withdrawn from consideration) The gene cassette of claim 46 wherein the protease sensitive site in the fusion gene is VRTQ/GPKR.
49. (new) A method for transient conveyance of a trait of interest to a plant, comprising:
 - a) constructing a cassette comprising 5' to 3' a first FRT/ LoxP excision site, a FLP/Cre coding sequence operably linked to a promoter, a transgene that expresses a protein conferring a plant trait of interest, and a second Lox P or FRT excision site;
 - b) introducing the cassette of step a) into the plant genome; and
 - c) activating the promoter to induce expression of FLP or Cre,wherein the expressed FLP or Cre interacts with both FRT or LoxP excision sites causing excision of the transgene to provide transient conveyance of the trait of interest.
50. (new) A method for transient conveyance of a trait of interest to a plant, comprising:
 - a) constructing a cassette comprising 5' to 3' a first FRT excision site, a first Lox P excision site, a FLP coding sequence, a Cre coding sequence, each FLP and Cre coding sequence operably linked to a promoter, a transgene that expresses a protein conferring a plant trait of interest, a second LoxP excision site and a second FRT excision site;
 - b) introducing the cassette of step a) into the plant genome; and
 - c) activating the promoter to induce expression of FLP and Cre,

wherein the expressed FLP and Cre interact with the first and second FRT and Lox P excision sites causing excision of the transgene to provide transient conveyance of the trait of interest.

51. (new) The method of claim 49 or 50 wherein the cassette further comprises a marker gene located between the excision sites.
52. (new) The method of claim 51 wherein the marker gene is kanamycin resistance gene.
53. (new) The method of claim 49 or 50 wherein the trait of interest is selected from the group consisting of growth habit, color, maturity, yield, mortality, sterility, disease resistance, metabolite production, and appearance
54. (new) The method of claim 49 or 50 wherein the trait of interest is a phenotypic plant trait.
55. (new) The method of claim 54 wherein the phenotypic plant trait is color, appearance or growth habit.
56. (new) The method of claim 49 or 50 wherein the promoter is an organ-specific, developmental stage-specific or inducible promoter selected from the group consisting of AG, AGL5, Bcp1, LAT52, PLENA, SIM, avrRp2 and alc.
57. (new) The method of claim 49 or 50 wherein the cassette further comprises a DNA encoding a transcription factor specific for an externally activated promoter operably linked to FLP.
58. (new) The method of claim 49 or 50 wherein the cassette further comprises a DNA encoding a transcription factor specific for an externally activated promoter operably linked to Cre.

59. (new) The method of claim 49 or 50 wherein the cassette further comprises a DNA encoding a transcription factor specific for an externally activated promoter operably linked to FLP and operably linked to Cre.
60. (new) The method of claim 49 or 50 wherein the promoter operably linked to FLP is a pollen specific promoter.
61. (new) The method of claim 49 or 50 wherein the promoter operably linked to Cre is a pollen specific promoter.
62. (new) The method of claim 49 or 50 wherein the promoter operably linked to Cre or to FLP is a pollen specific promoter